

Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method of restricting passage of a fluid from a first location to a second location, the method comprising:

(a) selecting a first material wherein said first material has a general formula $\text{OHC-G}^5\text{-CHO}$ wherein G^5 includes both an aromatic group and a N-containing heteroaromatic group;

(b) selecting a second polymeric material which includes a functional group which is able to react in the presence of said first material to form a third polymeric material;

(c) causing the formation of said third polymeric material by a reaction involving said first material and said second polymeric material, wherein said third polymeric material contains about 40 wt % to about 90 wt % water; and

(d) arranging said third polymeric material between said first and second locations.

2. (Currently Amended) A method of restricting passage of a fluid from a first location to a second location, the method comprising positioning a third polymeric material (~~herein "said third polymeric material"~~) between said first and

second locations, wherein said third polymeric material is a product of a reaction involving:

(a) a first material wherein said first material has a general formula OHC-G⁵-CHO wherein G⁵ includes both an aromatic group and a N-containing heteroaromatic group; and

(b) a second polymeric material which includes a functional group which is able to react in the presence of said first material to form said third polymeric material.

3. (Previously Presented) A method according to claim 1, which comprises restricting the passage of a fluid between two subterranean locations.

4. (Previously Presented) A method according to claim 1, wherein said first material and said second polymeric material are included in a restrictor formulation.

5. (Currently Amended) A method of reducing the production of water from a water and oil producing subterranean formation which comprises contacting the formation with:

(a) a restrictor formulation which comprises a first material and a second polymeric material ~~each being as described in claim 1,~~ wherein said first material has a general formula OHC-G⁵-CHO wherein G⁵ includes both an aromatic group and a N-containing heteroaromatic group and wherein said

second polymeric material includes a functional group which is able to react in the presence of said first material to form a third polymeric material; and/or

(b) a third polymeric material as described in claim 1 formed by reaction involving said first material and second polymeric material.

6. (Currently Amended) A method of plugging at least one relatively high permeability region bounded by at least one relatively low permeability region in a hydrocarbon bearing subterranean formation, said formation being penetrated by a well bore, the method comprising contacting said at least one relatively high permeability region with a restrictor formulation ~~and/or a third polymeric material as described in claim 4~~ which comprises a first material and a second polymeric material, wherein said first material has a general formula $\text{OHC-G}^5\text{-CHO}$ wherein G^5 includes both an aromatic group and a N-containing heteroaromatic group and wherein said second polymeric material includes a functional group which is able to react in the presence of said first material to form a third polymeric material; and/or said

restrictor formulation comprises a third polymeric material formed by reaction involving said first material and second polymeric material.

7. (Previously Presented) A method according to claim 5, which includes injecting a said restrictor formulation into a subterranean formation and causing it to move to a desired location in which it may restrict passage of fluid from a first location to a second location.

8. (Previously Presented) A method according to claim 7, wherein the viscosity of the restrictor formulation immediately prior to injection into a subterranean formation is less than 100 cp.

9. (Previously Presented) A method according to claim 5, wherein said restrictor formulation has a density at 25°C. which is less than the density of pure water.

10. (Previously Presented) A method according to claim 5, wherein the ratio of the wt % of said first material to the wt % of said second polymeric material in said restrictor formulation is less than 0.15.

11. (Previously Presented) A method according to claim 10, wherein the sum of the wt % of the first material and said second polymeric material in said restrictor formulation is at least 2 wt % and is less than 15 wt %.

12. (Previously Presented) A method according to claim 11, wherein said restrictor formulation includes at least 40 wt % and less than 90 wt % of water.

13. (Previously Presented) A method according to claim 5, wherein said restrictor formulation includes an additional component which is substantially immiscible with pure water at 25°C.

14.(Original) A method according to claim 13, wherein said additional component has a boiling point of greater than 110°C.

15. (Previously Presented) A method according to claim 13, wherein said additional component is a hydrocarbon or an oil.

16. (Previously Presented) A method according to claim 5, wherein the restrictor formulation includes a catalyst for catalysing the reaction of the first material and said second polymeric material.

17. (Previously Presented) A method according to claim 5, wherein a said restrictor formulation comprising said first material and said second polymeric material and, optionally, an additional component and a said catalyst, is prepared at the surface and then injected into the subterranean formation.

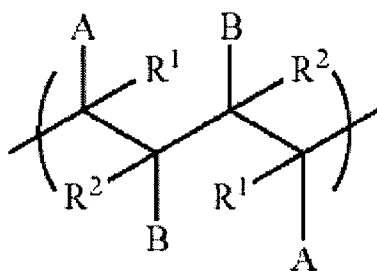
18. (Previously Presented) A method according to claim 5, wherein said first material is selected from an aldehyde, carboxylic acid, urea, acroleine, isocyanate, vinyl sulphate or vinyl chloride of a diacid.

19.(Currently Amended) A method according to claim 5, wherein ~~said first material is an aldehyde containing or generating compound~~ G⁵ includes an N⁺ moiety.

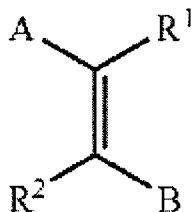
20. (Canceled)

21. (Currently Amended) A method according to claim 5, wherein said first material comprises:

(i) a first polymeric material having a repeat unit of formula



wherein each A and B are is independently ~~the same or different,~~
~~are~~ selected from optionally-substituted aromatic and heteroaromatic
groups and at least one comprises a relatively polar atom or group and R¹ and R²
independently comprise relatively non-polar atoms or groups with at least one A
being an aromatic group and at least one B being a heteroaromatic group; or
(ii) a first polymeric material prepared or preparable by providing a
compound of general formula



wherein A, B, R¹ and R² are as described above, in an aqueous solvent and causing the groups C=C in said compound to react with one another to form said first polymeric material.

22. (Original) A method according to claim 21, wherein R¹ and R² represent hydrogen atoms; and one of groups A and B includes a substituent which includes a carbonyl or acetal group.

23. (Previously Presented) A method according to claim 21, wherein said second polymeric material includes a functional group selected from an alcohol, carboxylic acid, carboxylic acid derivative, and an amine group.

24. (Previously Presented) A method according to claim 21, wherein said second polymeric material comprises a polymeric material AA which includes a polymeric backbone which includes carbon atoms and --O-- moieties pendent from the polymeric backbone.

25. (Original) A method according to claim 24, wherein said polymeric material AA includes a repeat unit of formula



26. (Previously Presented) A method according to claim 24, wherein said polymeric material AA includes a vinyl alcohol repeat unit and a vinyl acetate repeat unit.

27. (Currently Amended) A method of reducing the production of water from an oil-producing subterranean formation, said method comprising contacting the formation with a restrictor formulation which has a density between the densities of the oil and water (~~e.g. sea water~~) in the subterranean formation, wherein the viscosity of the restrictor formulation increases subsequent to contact with said formation, wherein said restrictor formulation includes a density adjustment additive which is capable of adjusting the density of the restrictor formulation so that it is intermediate the densities of oil and water in the subterranean formation and wherein said density adjustment additive has a density of greater than 0.80g.cm^{-3} and less than 0.95g.cm^{-3} .

28 - 30. (Canceled)

31. (Currently Amended) A subterranean formation comprising a first location and a second location, wherein a third polymeric material is arranged between the first and second locations for restricting passage of a fluid between the locations, wherein said third polymeric material is formed by reaction involving a first material and a second polymeric material, wherein said first material has a general formula $\text{OHC-G}^5\text{-CHO}$ wherein G^5 includes both an aromatic group and a N-containing heteroaromatic group, and wherein said second polymeric material includes a functional group which is able to react in the presence of said first material to form said third polymeric material.

32. (Currently Amended) A subterranean formation comprising a region having relatively poor natural water conformance and/or relatively high natural water coning, wherein said region is plugged with a third polymeric material ~~as described in claim 1;~~ wherein said third polymeric material is formed by reaction involving a first material and a second polymeric material, wherein said first material has a general formula $\text{OHC-G}^5\text{-CHO}$ wherein G^5 includes both an aromatic group and a N-containing heteroaromatic group, and wherein said second polymeric material includes a functional group which is able to react in the presence of said first material to form said third polymeric material.

33. (Currently Amended) A restrictor formulation comprising:
(a) a first material ~~as described in claim 1;~~

(b) a second polymeric material ~~as described in claim 1~~which includes a functional group which is able to react in the presence of said first material to form a third polymeric material; and

(c) an additional component for adjusting the density of the restrictor ~~formulator~~ formulation, said additional component having a density of greater than 0.80 g/m³ and less than 0.95 g/cm³.

34. (Currently Amended) A receptacle containing at least 10 litres of a restrictor formulation as ~~described~~ claimed in claim 33.

35. (Canceled)

36. (Currently Amended) ~~A method according to claim 35, which comprises selection of a first material, a second polymeric material, water and an additional component arranged to provide said droplets; and allowing the reaction of said first material and said second polymeric material to form said third polymeric material such that the additional component is encapsulated as droplets in the third polymeric material~~ A method of forming a polymeric material which encapsulates droplets of a strength adjustment additive in the polymeric material, the method comprising providing a first material, a second polymeric material, water and a strength adjustment additive; and allowing the reaction of said first material and said second polymeric material to form a third polymeric material under conditions such that the strength adjustment additive is

encapsulated as droplets in the third polymeric material.

37. (Canceled)

38. (New) A method of reducing the production of water from a water and oil producing subterranean formation which comprises contacting the formation with:

(a) a restrictor formulation which comprises a first material and a second polymeric material which includes a functional group which is able to react in the presence of said first material to form a third polymeric material; and/or

(b) a third polymeric material;

wherein the method includes injecting said restrictor formulation into said subterranean formation and causing it to move to a desired location in which it restricts passage of fluid from a first location to a second location;

wherein the viscosity of the restrictor formulation immediately prior to injection into said subterranean formation is less than 100cp.

39. (New) A method of reducing the production of water from a water and oil producing subterranean formation which comprises contacting the formation with:

(a) a restrictor formulation which comprises a first material and a second polymeric material which includes a functional group which is able to react in the presence of said first material to form a third polymeric material; and/or

(b) a third polymeric material;

wherein the method includes injecting said restrictor formulation into said subterranean formation and causing it to move to a desired location in which it restricts passage of fluid from a first location to a second location;

wherein said restrictor formulation has a density at 25⁰C which is less than the density of pure water.